

## APPENDIX

### Main Program

```
import csv
import networkx as nx
from algoritma.reverse_delete import main as rd
from algoritma.boruvka import main as br

def main()
    graph = nx.Graph()
    edges = []
    nodes = []

    with open('Data_Sample2/29KotaJawa.csv', newline='') as
csvfile:
    spamreader = csv.reader(csvfile, delimiter=',')

    for row in spamreader:
        edges.append({
            "node_satu" : row[0]
            "node_dua" : row[1]
            "jarak" : int(row[2])
        })
    if row [0] not in nodes:
        nodes.append(row[0])
    if row [1] not in nodes:
        nodes.append(row[1])
    graph.add_edge(row[0], row[1], len=int(row[2]))

    print("-----")
    print("Daftar Nodes :")
    for node in nodes:
        print(node)

    print("-----")
    print("Spanning Tree Awal:")
    for edge in edges:
        print(f"{edge['node_satu']}-{edge['node_dua']}, jarak:
{edge['jarak']}")
    total_jarak = graph.size(weight="len")
    print(f"Total jarak awal : {total_jarak}")

    print("-----")
    print("Algoritma Reverse Delete")
    reverse_delete = rd(edges, graph)
    rd_graph = reverse_delete[0]
    rd_time = reverse_delete[1]
    rd_jarak = rd_graph.size(weight="len")
    print("Daftar Edges Setelah Proses Algoritma Reverse
Delete:")
    for edge in rd_graph.edges.data():
```